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[57] **ABSTRACT**

A method is described of determining a sensitivity parameter of a toner monitor that forms a part of an electrostatographic recording apparatus having a development station that includes a mixture of a toner material in a toner developer composition wherein concentration of the toner material in the composition tends to change with use of the apparatus in making copies or prints. The method comprises providing in the development station a known weight or concentration of toner material as an initial condition of weight or concentration of toner material. The toner monitor generates a first signal representing a first output voltage of the toner monitor for the initial condition of weight or concentration of toner material. The electrostatographic recording apparatus is operated in a recording mode wherein the predetermined weight or concentration of toner material in the development station is reduced by a predetermined amount. The toner monitor generates a second signal representing a second output voltage of the toner monitor for the recording mode. There is then calculated a sensitivity parameter of the toner monitor in response to the first signal and the second signal. There is also described a method of determining gain of a toner replenishment device that forms a part of said apparatus, the method of determining gain comprises the steps of, after the recording mode, operating the toner replenishment device to deliver toner to the development station without toning any images; determining the time of operation of the toner replenishment device required to generate a third output voltage of the toner monitor equal to the first output voltage and calculating gain of the toner replenishment device by dividing the predetermined amount by said time.

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**10 Claims, 8 Drawing Sheets**

